

N E B R A S K A

autism spectrum disorders

N E T W O R K

Autism Spectrum Disorders:

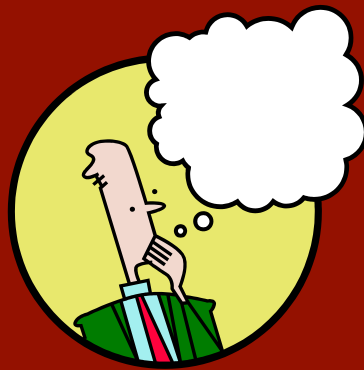
Definition & Characteristics

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“If you’ve seen one child with Asperger’s Syndrome or autism, you have seen one child with Asperger’s Syndrome or autism.”

Brenda Smith Myles (U. KS.)

November 14, 2000



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Critical Features of Autism

- Complex verification/diagnosis based on qualitative observation of “cluster” of behaviors
- Best described as social-communicative disorder
- Uneven development in skills/abilities
- Life-long effects (socialization, communication, learning, personal care, community participation)
- Individual outcomes improve with early identification and intensive intervention

Autism

- State Definition

To qualify for special education services in the category of autism the child must have a developmental disability which significantly affects verbal and non-verbal communication and social interaction, is generally evident before age three, and that affect the child's educational performance

Rule 51

Autism Definition—Rule 51 continued

August 30, 2008

Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or changes in daily routines, and unusual response to sensory experiences

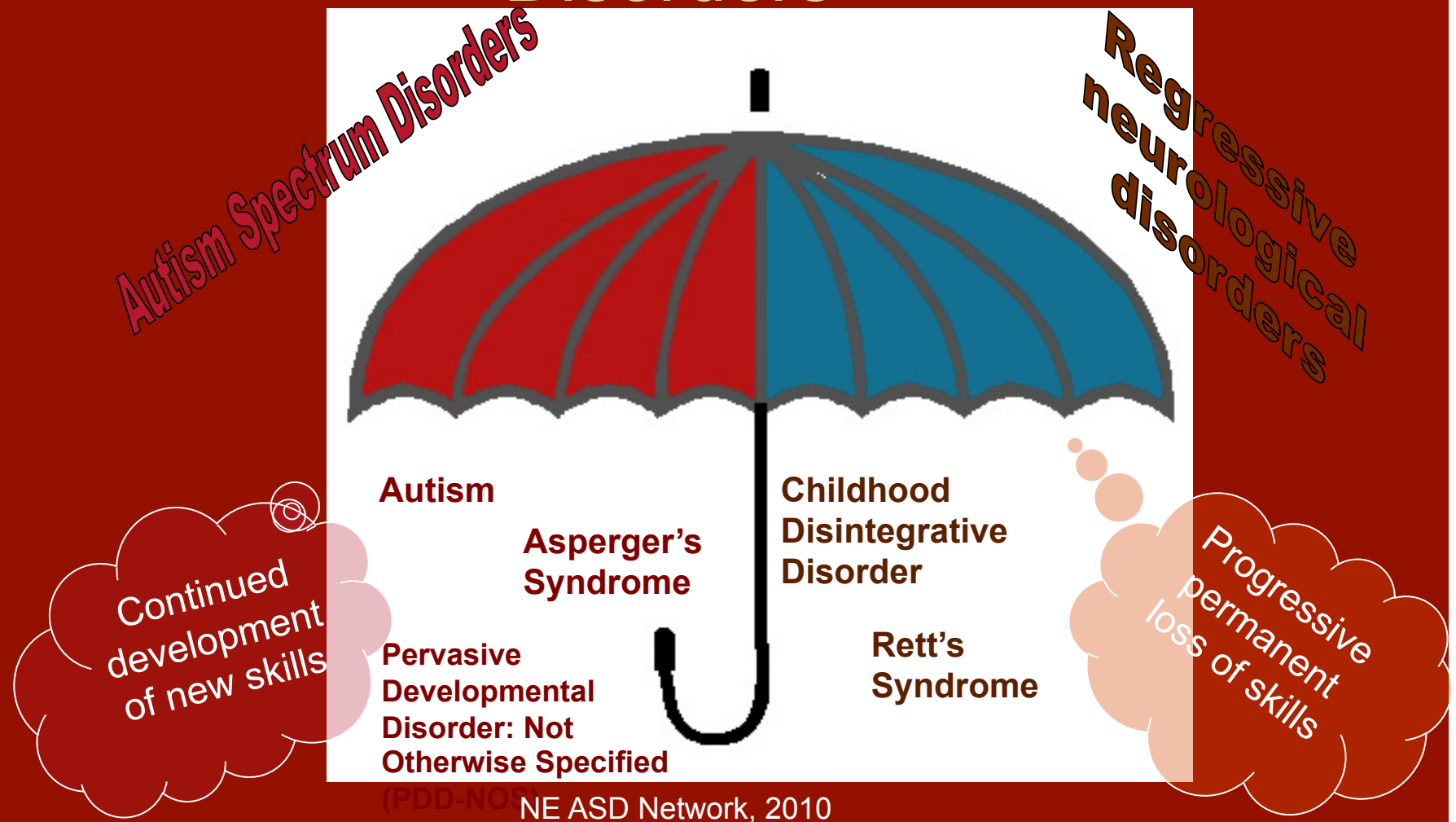
Autism does not apply if a child's educational performance is adversely affected primarily because the child has a behavior disorder as defined in 92 NAC 51-006.04C

A child who manifests the characteristics of autism after age three could be identified as having autism if the other criteria in 92 NAC 51-006.04B1 are met

The Bottom Line

Autism is a developmental disability that affects a child's communication, social interaction skills, and restricted interests or patterns of behavior.

Medical Diagnoses: “Pervasive Developmental Disorders



In Nebraska...

...medical diagnosis and educational verification are separate processes.

A medical diagnosis is determined via the Diagnostic & Statistical Manual IV-TR for Pervasive Developmental Disorders

Verification is the process conducted by a school district to determine if a student has a disability that affects their education, and to plan appropriate educational services. The verification will reflect assessments completed by a multidisciplinary team (MDT)

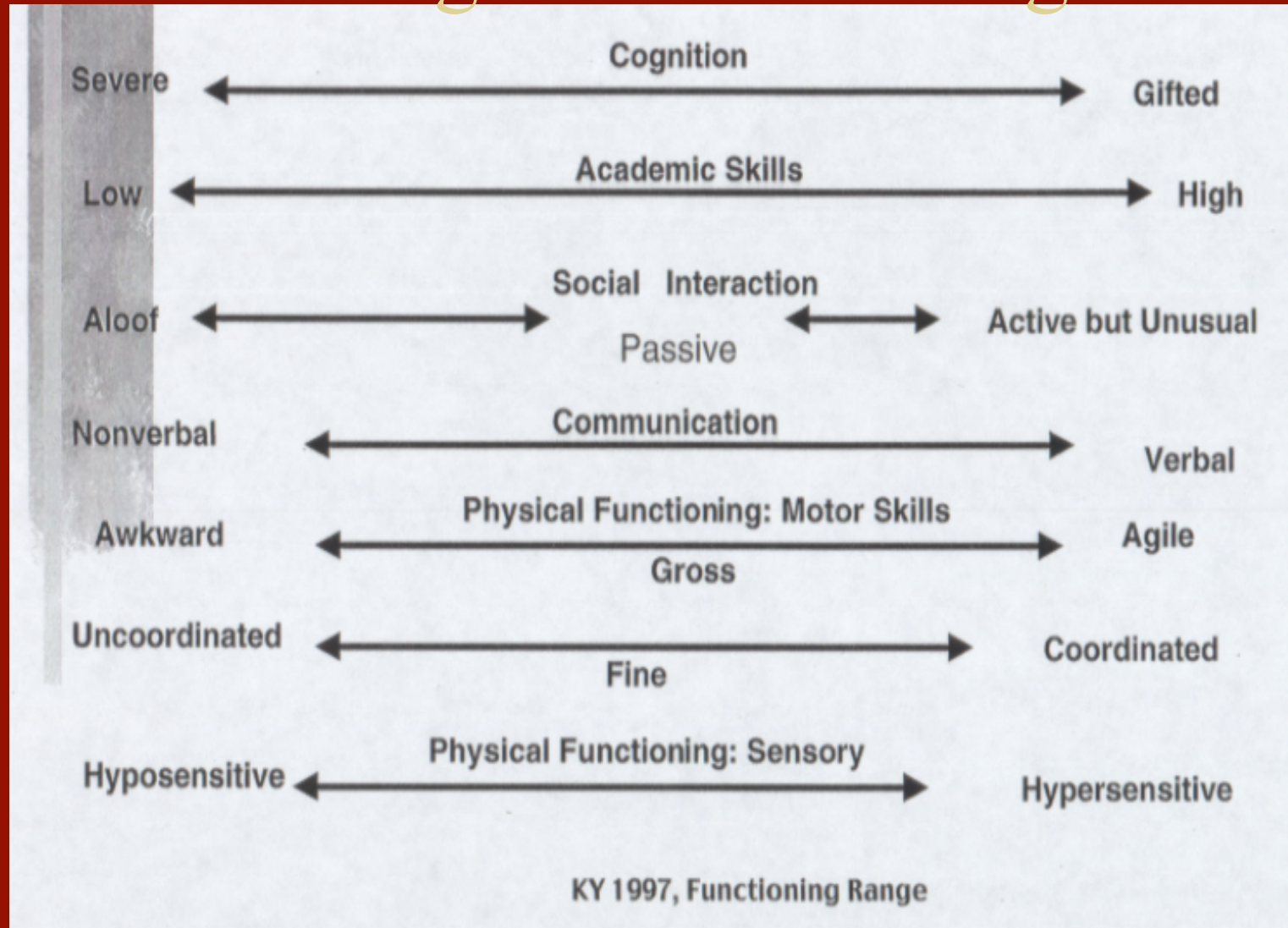
Autism Spectrum Disorder (ASD)

- *A spectrum disorder*
- Variance in characteristics and levels of functioning.
- Generally don't possess "savant" abilities

Autism Spectrum Profiles

- Possible uneven development in cognitive, communicative, social, adaptive & motor skills
- Examples:
 - A child may excel in academics but have difficulties relating to others socially
 - A child may be able to say/spell many difficult words, but cannot use them functionally

Range of Functioning



See the handout in your packet ASD Network Adapted from E. Siegel, 2003.

Autism Facts

- A lifelong neurodevelopmental disability
- A disability that usually is evident during the first three years of life
- Knows no racial or socioeconomic differences
- A developmental disability that can be improved and intervened upon, but not “cured”

Autism Facts (continued)

- 4 to 5 times more males than females
- More common than Down syndrome, childhood cancer or Fragile X syndrome
- A condition that can co-occur with other conditions, for example ADHD, OCD, ODD, depression, etc.

Autism Myths

Autism is NOT...

- a mental illness
- unruly kids who choose not to behave
- caused by poor parenting
- always associated with mental impairment
- always associated with behavioral challenges
- diagnosed by a single medical test or a brief observation

Other Characteristics of ASD

- Anxiety and stress
- Problematic behaviors
 - Impulsive, show lack of judgment
 - Social “rules” are not recognized
 - Act without fear (no recognition of danger)
 - Communicative function

Features that Impact Learning

- Attention difficulties
- Communication impairments
- Lack of social skills understanding
- Auditory processing impairments
- Generalization of skills
- Difficulties imitating behavior
- Behavioral issues
- Trouble with task/event sequencing
- Transitions and time concepts

Strengths

- Visual Discrimination
- IQ
- Grammar and vocabulary
- Rote memory
- Absorbs facts easily
- Can have an interest in social world
- Special talents



Major messages

- ASD—life-long disability
- Effective Instructional Practices
 - Highly qualified educators
 - Data-driven instruction
 - Core curriculum
 - Structure/predictability
 - Active family involvement

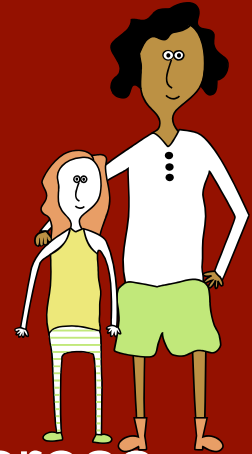
Who Wants to Be a Millionaire??

- **At what age do the symptoms of autism usually appear?**
 - A. Early 20s
 - B. Teen years
 - C. Pre-puberty
 - D. 3 or younger

• **FINAL ANSWER??**



Think about a Student you Know...



- Use the Range of Functioning form to think about your student/child across domains.



Share your form and describe your student/child to the person sitting next to you.

Autism Spectrum Disorders:

High Functioning Autism/ Asperger's Disorder

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Participant Outcomes

Participants will be able to:

- List primary characteristics of high functioning autism (HFA) or Asperger's Disorder
- Describe where high functioning autism or Asperger's falls on the autism spectrum
- Identify areas of difficulty commonly faced by individuals with high functioning autism or Asperger's Disorder

Differences between Autism and Asperger's Syndrome

Remember, autism is a *spectrum disorder*.

- Research has not shown a clear distinction between Asperger's and High Functioning Autism (Attwood, 2004)
- Some researchers theorize there are differences in characteristics of Asperger's v. HFA (Volkmar, 2003 presentation)

Current Diagnostic Criteria: DSM-IV: Asperger's Disorder

- Impairments in social interactions
- Restricted interests/patterns of behavior
- No significant delay in early language and cognition
- Exclusion of autism first

Currently, Rule 51 does not specify Asperger's as a verified disability in Nebraska. (Rule 51, August 30, 2008)

HFA/AS Characteristics

Individuals with HFA/AS may display some or all of the following:

- Difficulty forming appropriate relationship with peers
- Lack of spontaneous sharing of interests and achievements
- Difficulty reading social cues and social situations
- Difficulty with social reciprocity
- May have uneven motor skill development

HFA/AS : Characteristics (cont'd)

Special/restricted interests

- INTERFERE with acquisition of other skills
- Adherence to routines that are not functional
- Difficulty with changes in routines
- Preoccupation with parts of objects

HFA/AS: Possible Difficulties

Social Deficits

- Conversation abilities
- Understanding the realm of social relationships
- Identifying feelings in self and of others
- Emotional regulation

HFA/AS: Social Deficits (cont'd)

For example, individuals with Asperger's may experience difficulties...

- explaining their own behavior & emotional state
- predicting events & reactions of others to their behavior
- predicting & reacting to the behavior of others
- understanding the intentions & perspectives of others
- understanding things that are not black & white
- understanding proximity "rules"

HFA/AS:

Language Use & Comprehension

- May not show clinically significant delays in language acquisition
- “...tend to speak fluently by the time they are five”, but language is frequently, “...odd in its use for communication.” (Frith, 1991)
- Demonstrate abnormal social and conversational communication skills
- Have difficulty comprehending abstract concepts, figures of speech and meaning and intent of rhetorical questions

HFA/AS: Language Use & Comprehension (cont.)

- Vocabulary and ability to speak may be excellent, however, communication with language may be a deficit
 - Tangential speech about special interests
 - Lack of understanding of conversational rules
 - Inability to change topics

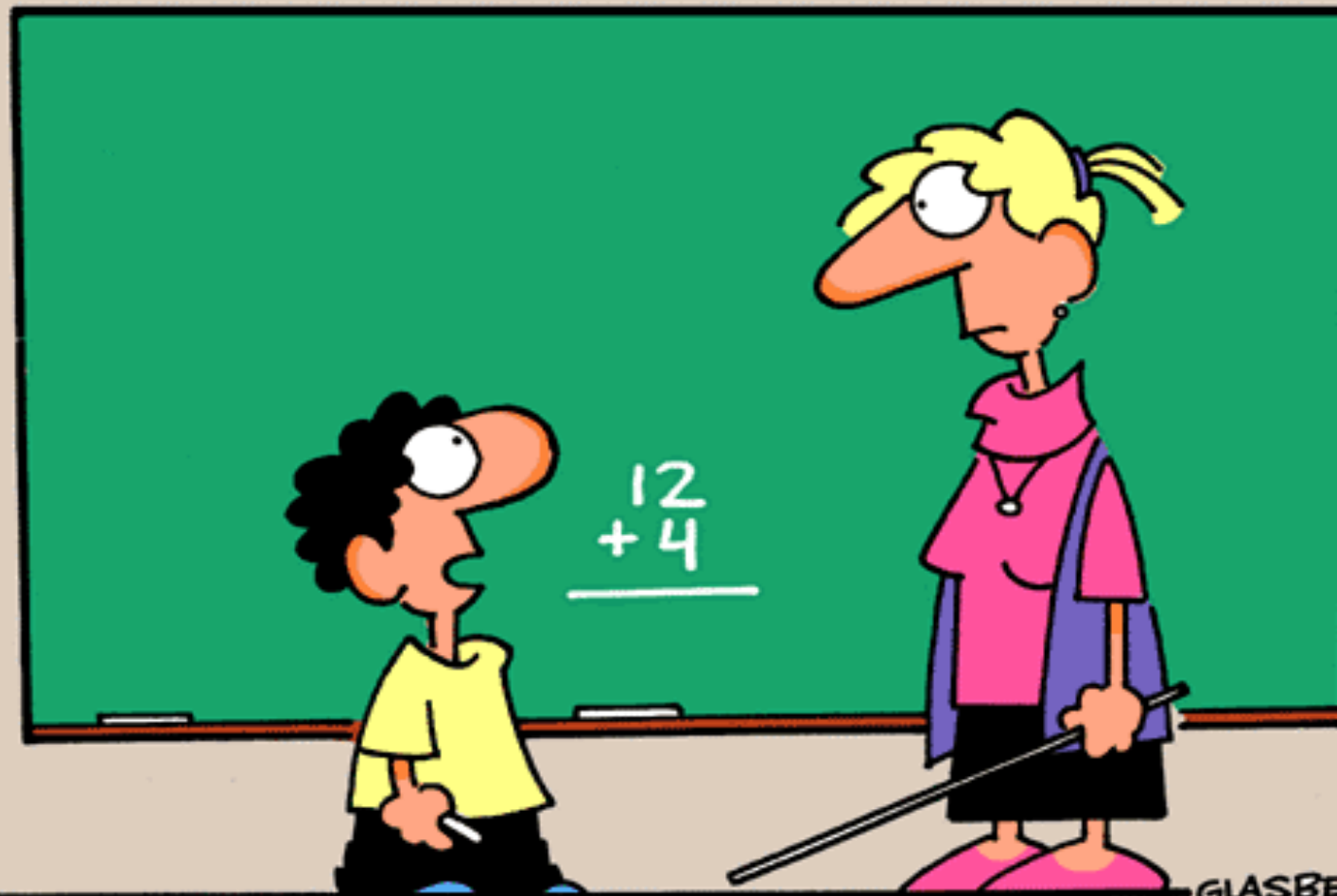
HFA/AS: Problems Associated with Academic Success

Students may experience difficulty in:

- Attending to relevant stimuli
- Following auditory instructions
- Understanding scope & sequence of activities
- Generalizing and/or applying knowledge
- Planning & organizing
- Maintaining interest to tasks unrelated to special interests

HFA/AS: Emotional Regulation Issues

- Becomes anxious or panics
- Becomes upset over “little things”
- Exhibits tics, noises or fidgeting
- Loses temper or has tantrums
- Enters fantasy world
- Feels overwhelmed or bewildered
- Imposes interests, routines & structures on others
- Threatens or intimidates others
- Difficulty with change



“Do I get partial credit for simply having the courage to get out of bed and face the world again today?”

Who Wants to Be a Millionaire??

- **A person who has symptoms of autism but has good language skills may have:**
 - A. Asperger syndrome
 - B. Guillain-Barre syndrome
 - C. Pellizzi's syndrome
 - D. None of the above
- **FINAL ANSWER??**



Autism Spectrum Disorders: Etiology & Prevalence

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Participant Outcomes

Participants will be able to:

- Identify prevalence rates of autism and why we are seeing an increase in ASD
- Identify current theories regarding the etiology of autism

Prevalence

The incidence of autism is increasing nationally

- In December, 2009 The Centers for Disease Control & Prevention (CDC) released a new report. It states that 1 in every 70 boys in the US is affected by autism -- and 1 in every 110 children has an autism spectrum disorder.
- Nebraska school verifications are no exception.
Educational Autism Verifications by Year
 - 1997-98: **240**
 - 2008-2009: **1697**
 - 2009-2010: **1947**

What Causes Autism?

- It is generally accepted that autism may be caused by brain abnormalities
- It is also widely accepted that autism may be associated with a genetic event but no single gene or group of genes account for all autism cases
- Thus, there may be several “autism” genes, potentially representing different ‘profiles’ of autism

What Causes Autism (cont.)

- It is likely that autism is not caused by one single factor
- Evidence exists to suggest many genes may interact to cause autism
- Theories propose individuals may be “predisposed” to autism and environmental factors (chemicals, etc.) may influence the development of autism

Theories Not Validated by Research

Currently, there is no empirical data linking:

- Autism to MMR vaccinations
- Autism and mercury poisoning
- Improvements for children with autism with restricted diets, secretin, or other adjunctive therapies

Theories regarding the Increase in Prevalence

- Changes in diagnostic criteria--broader view of spectrum
- Increasing awareness of ASD
- Recognition that ASD can be associated with other disorders
- Real increase in the number of individuals with ASD due to factors such as diet, allergies, environmental toxins, vaccines, etc. (Research does not support causal associations with these factors)

Who Wants to Be a Millionaire??

- **What's the cause of autism?**
 - A. Mothers who don't bond with their newborn
 - B. A single gene on chromosome 12
 - C. Poor prenatal nutrition
 - D. There is no single cause of autism

Final Answer????



Autism Spectrum Disorders:

Effective Educational Practices

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Children with different styles require different educational approaches



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Objectives

- Consider the underlying deficits of children on the autism spectrum
- List and define evidence based practices
- Consider individual strength and needs when selecting and implementing teaching strategies
- Understand the core components of effective educational strategies

Let's talk about Effective Interventions

“Sam’s autism is different than Sarah’s autism is different than Kyle’s autism is different than Nathan’s autism:

While there are common characteristics and traits shared by individuals on the autism spectrum...

everyone’s autism manifests itself differently, so intervention strategies will need to be individualized to address these differences.

Evidenced-Based Practice

An instructional strategy that:

- Has a base of high quality research over a **range of different students, in a range of places, and over a range of behavior**
- Has been shown to result in measurable educational, social, or behavioral benefit

What else do the *experts* say...

Programs should have the following components:

- Individualized Supports
- Systematic Instruction
- Structured Environment/Visual Strategies
- Specialized Curriculum: Communication
- Specialized Curriculum: Social Skills
- Functional Approach to Problem Behavior
- Family Involvement

*Iovannone, R., Dunlap, G., Huber, H., & Kincaid, D. (Fall, 2003).
Effective Educational Practices for Students with
Autism Spectrum Disorders. Focus on Autism & Other
Developmental Disabilities, 18, 150-165.*

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Individualized Supports and Services

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Individualized Supports

Preferred Activities



- Be aware of students' preferred activities
- Watch students during recess, breaks or down time, their actions will give you information on their preferences
- Provide choices to get an idea of what the student prefers.

Motivation

Although individuals with Asperger Syndrome and autism appear to have low motivation, the truth is that they often have a different type of motivation (Baker, 2000; Dunlap, 1995).

Until teachers and parents find out what the motivator is, it is difficult to prompt the student to complete work and related tasks.

Reinforcement

- The child with an ASD needs to know what the reinforcement or the “paycheck” is for his/her work.
- Use Visual Schedules of Reinforcement to show them what the reinforcement is for completing an activity or a task appropriately.
- Reinforcer Assessment

“I Don’t Believe in Rewards”

- Reinforcement and rewards are NOT the same thing
- Reinforcement is a scientific concept-it exists without our manipulation
- Not believing in reinforcement is like not believing in gravity

What's the Difference?

Every day that Ellen finishes her reading assignment on time, Mrs. Farmer allows her to take sports equipment out to recess. If Ellen enjoys using the equipment at recess, she is likely to continue finishing her work on time.

Mr. White sends Darrin out of the room because of disruptive behavior in class. Darrin talks to other students and teachers who see him, in addition to avoiding his work. Mr. White finds that Darrin is disruptive again soon after he is permitted to return to class.

Systematic Instruction

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Systematic Instruction

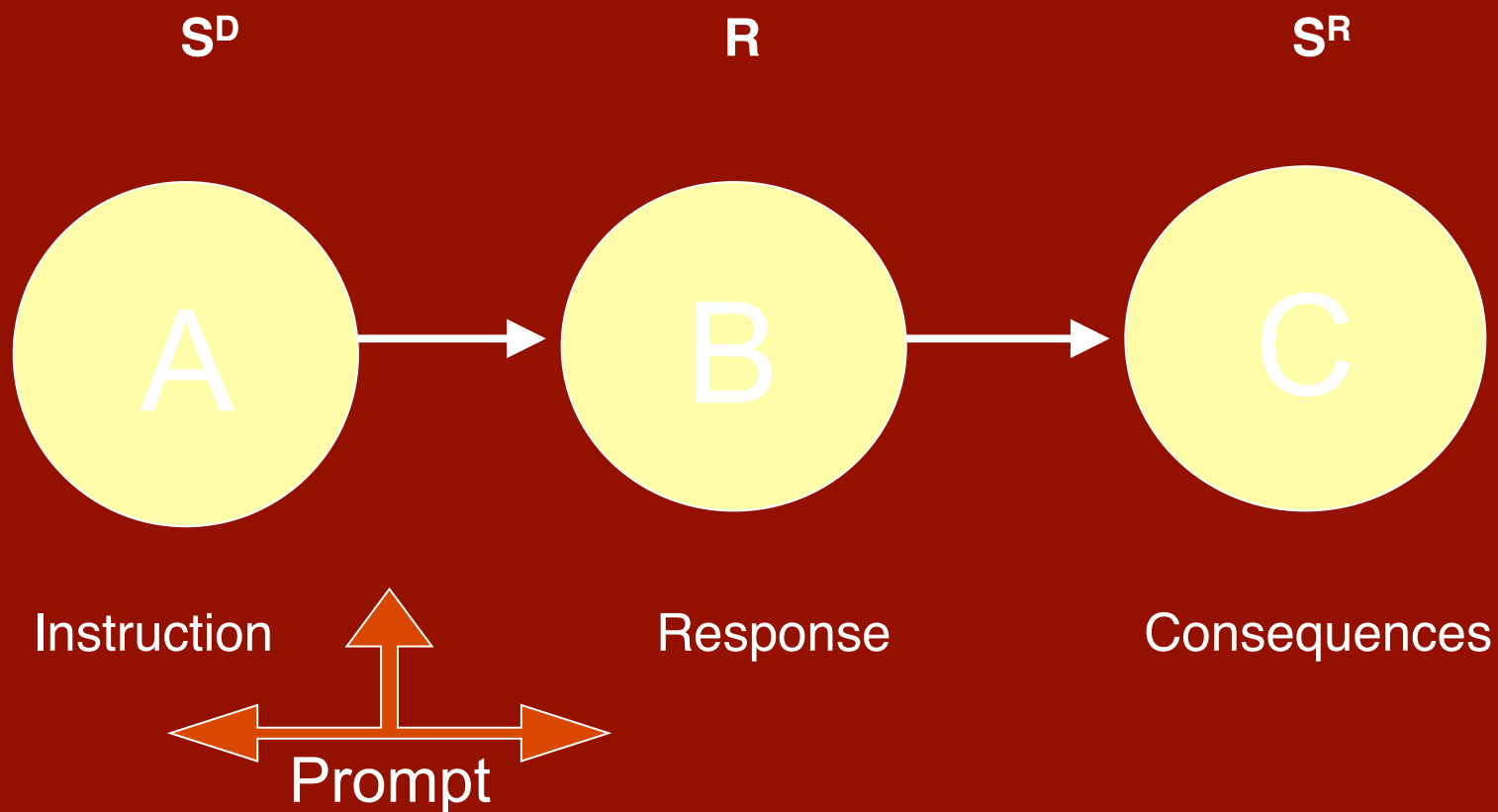
Instructional techniques that provide structured teaching plan for acquisition, generalization and maintenance of skills

Strategies address:

1. Providing many opportunities for success
2. Incorporating a plan for generalization
3. Providing clear, concise instructions
4. Assess tasks/parts of tasks



Three-Term Contingency



Levels of prompting:

- Full Physical (Hand over hand)
- Partial Physical (touching elbow to guide child to the block)
- Modeling (demonstrating picking up the block – used when teaching imitation skills)
- Gestural
- Positional
- Pictorial/Visual
- Verbal



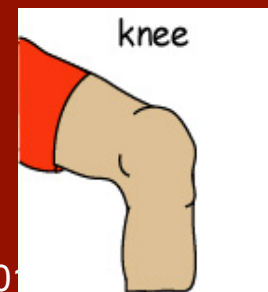
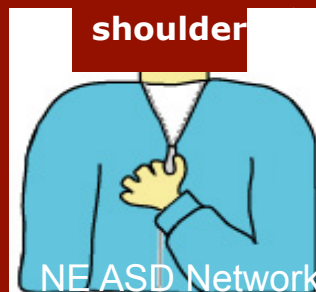
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Prompting

- Reminders for an individual about specific steps of a task
- Allows for more independence
- Helps person to learn existing skills better
- Only use prompts when needed
- Test, teach, practice, fade

Classroom Example: Systematic Instruction

- Prior to doing a music activity such as ***Head, Shoulders, Knees and Toes***, practice each individual movement with the child ahead of time. With practice he is more likely to be able to be prepared and participate in the group activity. Provide the student with many opportunities to practice before expecting him to follow along during the group activity.



Provide A Comprehensible (Structured) Environment

Provide A Comprehensible (Structured) Environment

This can also be referred to as Structured Teaching or TEACCH

Some of our Structured teaching examples were downloaded from the Wisconsin Department of Special Education website:

- www.specialed.us/autism/early/ear11.htm

Structured/Comprehensible Learning Environments

Ideas for Classroom Organization

- Provide structure/routines
- Consider having children work in small groups
- Provide clear instructions
- Define roles/expectations of assistants, peers, and student with ASD



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Structured/Comprehensible Learning Environments

Using Visual Supports may...

- Provide a detailed sequence of steps to help prompt student without negative emotional input
- Provide choice-making opportunities
- Define specific areas
- Provide behavioral support
- Prompt coping strategies
- Independence/greater participation
- Facilitate transitions, flexibility & change

Structure the Environment

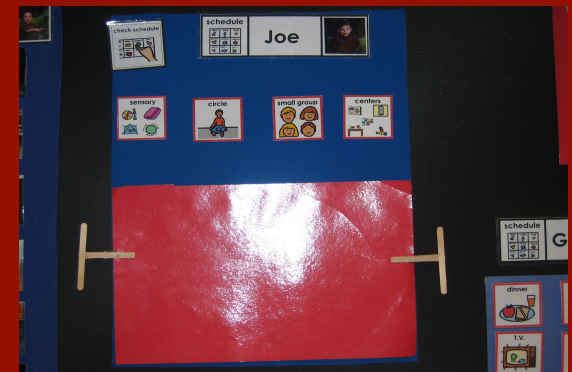
- Create a picture or object cue that helps the child predict the daily routine or an upcoming event. (Use line drawings, photographs, or pictures, depending on the skills of the child.)
- Set up the environment to “tell” the student and other staff members
 - What do I have to do
 - How much do I have to do (amount, length)
 - How will I know when I am finished
 - What do I get to do next

Structure the Environment

Example: Prior to music time, assist the child in retrieving a maraca from an object schedule and have him take it to the music area. Over time, fade assistance and have the maraca signify that the child should go to the music area.

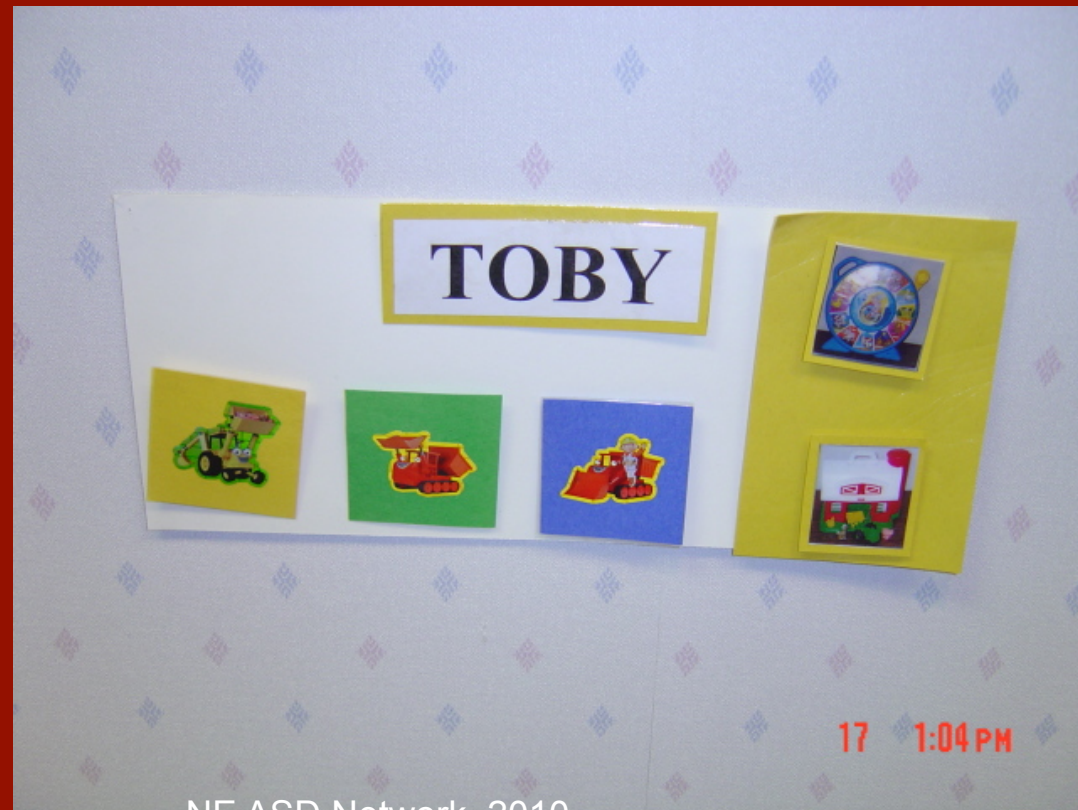


Example: Upon arrival at daycare or preschool, provide the child with a picture schedule indicating major daily activities. Teach the child to remove the first picture and take it to the designated area. Match the picture to an identical picture at that location. (Fade assistance so the child becomes independent.) NE ASD Network, 2010



Examples of Structuring the Environment through Visual Supports

Work task schedule with reinforcer



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Daily Schedule



Specialized Curriculum:

Communication

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Specific Curriculum Content: Communication

- Assessment should lead to understanding of appropriate communication goals.

Focus on how the student will effectively
communicate expressively AND
How the student best understands
communication from others.

Communication Approaches:

- Pivotal Response Treatment
- Verbal Behavior
- Picture Exchange Communication System (PECS)
- Assistive Technology Devices
- Sign Language

Know how/what the child communicates

Gesture/Communication Dictionary

- Provides information to team members about the student's communication repertoire

Provide Opportunities to Communicate

Some children with ASD enjoy hearing stories or phrases over and over and are more likely to verbally attempt a familiar word or phrase when provided a fill in the blank opportunity.

Example: When looking at a familiar repetitive book with a child with autism such as *Brown Bear, Brown Bear, What Do You See?*, provide opportunities for the child to fill in the blanks. You could say, “Brown Bear, Brown Bear, what do you _____?”, creating an opportunity for the child to complete the sentence.

Specialized Curriculum

Social Skills

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Social Style

- Aloof
- Passive
- Active-But-Odd



Social Style and Goals

Aloof → Responding

Passive → Initiating

Active-But-Odd → Reciprocity

Why teach social skills?



- Major deficit for children with autism spectrum disorders.
- Will have to use in daily life whether they are 5 or 105.

*“If the world was left to you
socialites, we would still be in
caves talking to each other!”*

Temple Grandin

Specific Curriculum Content: Social Skills

- Curriculum should be specialized to include social engagement skills such as:
 - Initiating and responding to social interactions,
 - Recreation/leisure skills
 - Social cues and “rules”

Social Inclusion: What Do the Peers Say?

- Typical peers often report that they have insufficient knowledge and inadequate communication strategies (York & Tundidor, 1995)
- Most peers prefer to interact with each other rather than children with HFA (Chamberline, Kasari, Rotheram-Fuller, 2007)

Functional Approach to Problem Behavior

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Commonly reported challenging behaviors in the classroom

- Interrupting and other impulsive verbal behaviors
- Resistance to changes in routine
- Insistence that certain rules be followed
- Concrete style
- Poor handwriting
- Difficulty accepting mistakes
- Little patience
- Driven quality
- Social vulnerability
- Distractibility
- Perseverations or obsessions

Consider the message the behavior is sending

- Is confused, needs help but has difficulty communicating under pressure
- Feels negative affect (e.g., anxiety, worry, sad, mad) and doesn't know how to manage it physiologically and behaviorally
- Wants to escape
- Craves predictability
- Wants to interact, doesn't know how
- Thinks he can't do something well, so doesn't try

Catch the Student Being Good

- Always be on the look out to praise or reinforce good attention, effort, participation, waiting, tolerance, acceptance of change, coping, etc.
- Link rewards to effort and participation but provide intermittently and not only with a formalized contract ahead of time

Set Clear Limits

- Anticipate challenging situations
- Share written rules/guidelines with student for specific situations
- Be explicit, rule-governed, clear, consistent
- Pick and choose battles

Use clear and specific language to shape behavior

- Avoid phrases like “behave yourself” – not specific enough
- Tell the student exactly what is expected and for how long: “You need to be sitting quietly and reading your science book until 11:15.”
- Emphasize words that indicate when – “now”, “later”, etc. and gently redirect if student acts before it is time

Encourage Choice-making

- Autonomy is often very important for these students; use it to prevent problems and reinforce effort
- Help student identify how choices are perceived by other people

Use Visual Reminders

- Use post-it notes or index cards on the child's desk to remind him/her of appropriate behavior (e.g., "raise your hand")
- Instead of verbally reminding child, simply touch the card to send the message

Use the Buddy System

- Encourage the child to watch what another student does and model that behavior
- Rotate buddies
- Whenever possible, use same-gender buddies

Use a “ticket out” system

- Provide a limited number of tickets out of the classroom per day
- Provide written guidelines to the student for where to go, how long, etc.
- Determine a safe place to go and/or supervision
- Teach the student when to use the tickets
- Reinforce appropriate use

Plan for alternative activities

- For example, if cafeteria is too noisy and upsetting, create a plan for eating and going elsewhere
- It may not be useful for some students to participate in all classes, assemblies, field trips etc.— make these decisions with parents

When problem behaviors occur

- Label the misbehavior in a calm, neutral manner
- Whenever possible, allow natural consequences to arise
- Do not process/discuss problem behavior in the moment
- Wait for a calm time to discuss what the student could have done differently

Closing Thoughts: Family Involvement

Family members are the most stable, influential, and valuable people in the child's environment (Dunlap, 1999).

Family Involvement (cont.)

- Parents should be “active partners in developing their child’s educational plan”. (Dunlap & Fox, 2002)
 - Generalization
 - Consistency in multiple environments
 - IDEA mandate to include parents in the IEP process--strengthened in reauthorization in 1997.

Example:

Parent Involvement Strategies

- Teach parents to implement strategies
- Devise method of communication between home and school
- Have parents serve as active members of educational team
- Consider family characteristics and contexts during planning

http://www.autismspeaks.org/sponsoredevents/autism_every_day.php

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Selecting Interventions: A Process Approach

- Assess individual strengths and needs
- Know the facts about ASD interventions
- Select an array of interventions based on above
- Utilize team members' unique knowledge & skills to integrate these components
- Train all team members to integrate
- Evaluate program

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The Bottom Line...

- There is NO secret recipe!
- There is no “Quick fix” or “band aid” for students with ASD
- Individualize...some of the strategies discussed may be exactly what one student needs
- None of them may be what another student needs!